spheroidal particles, while at the same time not decreasing the flow parameters of such a coating more than 1.5 times.

Support for amending claims 1 and 5 can be found in Tables 2, 3, 5, 6, 7 and 9 at pages 6-7 and 10-12. More specifically, Table 9 contains a chart that compares the gloss and flow parameters of coating compositions that were prepared without any spheroidal particles to those coating compositions that were prepared with spheroidal particles. The specific formula of each coating composition contained in Table 9 is set forth in Tables 2, 5, 6, and 7. Additionally, Spheriglass 3000E with a median diameter of 45 μm and a content of 60phr (33.7 wt.%) is the spheroidal particle component that was added to each coating composition in order to produce each of the spheroidal particle containing coating compositions listed in Table 9. Please see Table 3 for the specifics regarding the Example 1 and 4 TGIC polyesters referred to in Table 9. No new matter has been added.

The "5-50 wt.%" limitation in claim 1 has also been amended to "5-60wt.%" in accordance with the disclosure at page 4, lines 12-14.

Rejection under 35 U.S.C.§ 102

Claims 1-9 stand rejected under 35 U.S.C.§102 (e) as being anticipated by U.S. Patent No. 6,217,252 to Tolliver when taken in view of the *Encyclopedia of Polymer Science and Engineering*. Tolliver is said to disclose a powder coating composition of a thermosetting or thermoplastic polymer and a method of adding spheroidal particles to the powder. The *Encyclopedia* article is said to disclose ceramic microspheres of a particle size within Applicants' invention.

Tolliver is not directed to a powder coating composition that provides a matte finish useful, for example, for the interior of automobiles. On the contrary, Tolliver is directed to a flame spray transportation composition that forms a coating having reflective, skid resistance or magnetizable particles of any shape or size at its surface. Unlike the powder coating compositions of Applicants' claimed invention, the flame

spray transportation compositions of Tolliver are used to mark transportation surfaces, such as roadways, traffic barriers, parking lots, bicycle paths, walkways, etc. with coatings having a reflective, skid-resistant or magnetizable surface. Tolliver does not teach that spheroidal particles can be incorporated into a powder coating without negatively affecting flow parameters to produce a low gloss coating having a smooth surface that is acceptable to the automotive industry, and certainly does not teach that the gloss of a powder coating containing spheroidal particles can be decreased by twice as much as a powder coating devoid of spheroidal particles while only marginally decreasing the flow parameters of up to a maximum of 1.5 times.

Furthermore, the *Encyclopedia* merely describes microspheres as being spherical particles that provide unique properties to plastics when used as fillers. This reference does not teach that microspheres can be used to produce a low gloss powder coating, and certainly does not teach that incorporating 5-60wt.% of microspheres having a median particle diameter greater than 10 microns and a maximum particle diameter of about 50 microns will reduce the gloss value of a powder coating by at least twice as much as a powder coating devoid of microspheres while only marginally decreasing the flow parameters of such a powder coating by up to a maximum of 1.5 times.

Even if one did combine the two references, as suggested by the Examiner but not the references, a low gloss powder coating having a gloss value that is decreased by at least twice as much as a powder coating devoid of microspheres while only marginally decreasing the flow parameters of such a powder coating by up to a maximum of 1.5 times, would not be obtained.

Claims 5-7 were also rejected under 35 U.S.C.§102 (e) as being anticipated by U.S. Patent No. 6,017,640 to Muthiah. This patent is directed to dual cure powder coatings that use a thermal initiator and a UV initiator for thermal and UV curing of the powder coating after application. Muthiah discloses that a wide variety of fillers can be used in the powder

coating composition to lower gloss, but does not suggest the particular spherical particles in the amount, type and size claimed by Applicants. Further, there is no teaching or suggestion that incorporating 5-60wt.% of microspheres having a median particle diameter greater than 10 microns and a maximum particle diameter of about 50 microns will reduce the gloss value of a powder coating by at least twice as much as a powder coating devoid of microspheres while only marginally decreasing the flow parameters of such a powder coating by up to a maximum of 1.5 times. Moreover, Mathiah fails to disclose which of the laundry list of fillers disclosed therein could be utilized to produce a powder coating composition that successfully reduces the gloss of the powder coating formed upon baking by at least twice as much as a powder coating devoid of microspheres, while only marginally decreasing the flow parameters of such a powder coating by up to a maximum of 1.5 times. As a result, Mathiah fails to disclose which select fillers can be incorporated into the powder coating composition so as to produce a powder coating having a gloss value that is decreased by at least twice as much as a powder coating devoid of spheroidal particle, while at the same time has acceptable flow parameters so that the undesirable effects of orange peel, which are routinely experienced when random fillers are incorporated into a powder coating composition, can be avoided.

Furthermore, the *Encyclopedia* reference fails to disclose which of the laundry list of filler components disclosed in Mathiah could be utilized to produce the low gloss powder coating composition claimed by Applicants, but instead merely shows microspheres of various diameters that can be used with certain plastics. Not only does this reference fail to disclose which fillers can be used, it does not even teach that low gloss powder coatings can be formed having good flow on curing by incorporating microspheres in accordance with Applicants' teachings into a powder coating composition. As a result, even if one did combine the two references, as suggested by the Examiner but not the references, a low gloss powder coating having a gloss value that is decreased by at least

twice as much as a powder coating devoid of microspheres while only marginally decreasing the flow parameters of such a powder coating by up to a maximum of 1.5 times, would not be obtained.

Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicant's representative at the telephone number below to resolve any remaining issues.

If there is any fee due, which has not been accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully Submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In showing the changes, the material to be deleted is in brackets and the material to be inserted is underlined.

Claim 1. (amended) A low gloss powder coating composition having a low gloss value and good flow parameters consisting essentially of spheroidal particles and at least one resin selected from the group consisting of thermosetting resins and thermoplastic resins [and spheroidal particles,];

wherein said spheroidal particles [comprise] are comprising 5 to [50] 60 wt.% of the coating composition and have a median particle diameter [of] greater than 10 microns and [have] a maximum particle diameter of about 50 microns, said spheroidal particles being [and are] selected from the group consisting of glass microspheres, ceramic microspheres, spheroidal minerals, polymer microspheres and metal microspheres [and the];

wherein said resin is selected from the group consisting of saturated polyesters, unsaturated polyesters, acrylic resins, acrylate resins, polyester-urethanes, acrylic-urethanes, epoxy, epoxy-polyester, polyester-acrylics, epoxy-acrylics, polyamides, polyvinylchloride, polyethylene, polyethylene terephthalate, polybutylene terephthalate and polypropylene;

wherein said gloss value is decreased by at least twice as much as a coating composition comprising 0 wt.% of spheroidal particles; and

further wherein said flow parameters are decreased by no more than 1.5 times as much as the coating composition comprising 0 wt.% of spheroidal particles.

Claim 5. (amended) A process [of reducing gloss of a] for producing a low gloss powder coating composition having a low gloss value and good flow parameters, comprising the steps of adding [to a powder coating composition comprising a resin selected from the group consisting of thermoplastic resins and thermosetting resins between] 5 [and] to 60 wt.%, based on [the] total weight of the low gloss powder coating composition, [of] spheroidal particles having a median particle diameter [of] greater than 10 microns and a maximum diameter of about 50 microns[,] to a powder coating composition comprising at least one resin selected from the group consisting of thermoplastic resins and thermosetting resins;

wherein said spheroidal particles are selected from the group consisting of glass microspheres, ceramic microspheres, spheroidal minerals, polymer microspheres and metal microspheres [and the];

wherein said resin [of the powder coating composition] is selected from the group consisting of saturated polyesters, unsaturated polyesters, acrylic resins, acrylate resins, polyester-urethanes, acrylic-urethanes, epoxy, epoxy-polyester, polyester-acrylics, epoxy-acrylics, polyamides, polyvinylchloride, polyethylene, polyethylene terephthalate, polybutylene terephthalate and polypropylene;

wherein said gloss value is decreased by at least twice as much as a coating composition comprising 0 wt.% of spheroidal particles; and

further wherein said flow parameters are decreased by no more than 1.5 times as much as the coating composition comprising 0 wt.% of spheroidal particles.